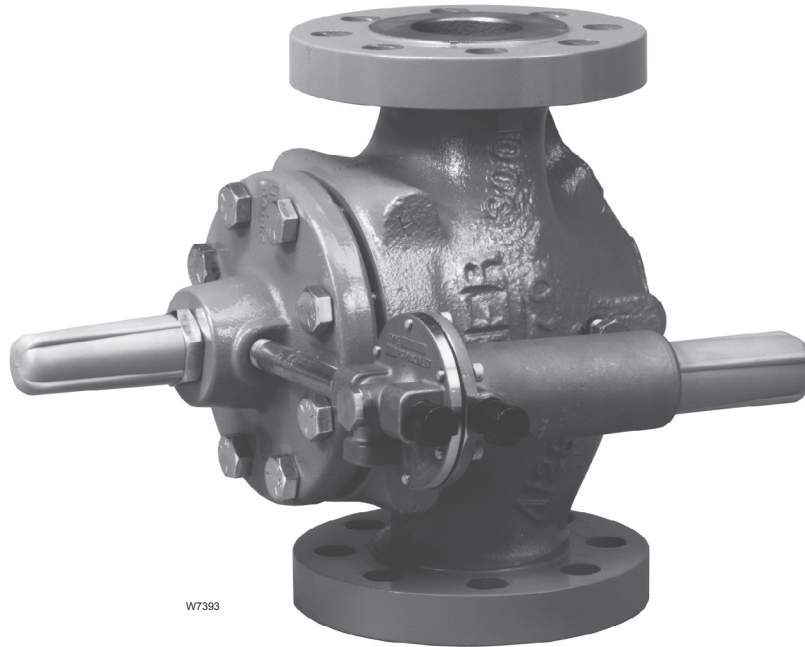


May 2019

Type EZR Relief Valve or Backpressure Regulator



W7393

Figure 1. Type EZR Relief Valve or Backpressure Regulator

Features and Benefits

Quiet Operation—The specially engineered flow path allows flow through the center of the cage and down through the cage slots that reduce operational noise, making the Type EZR exceptionally quiet.

O-ring Design—The Type EZR uses elastomer O-rings instead of gaskets, reducing maintenance and assembly time.

Versatility—By changing from a relief piloting system to a pressure reducing piloting system, a Type EZR relief valve or backpressure regulator easily becomes a pressure reducing regulator.

Long Life—The robust design of the Type EZR with its metal plug and specially engineered flow path allows flow through the regulator without seat impingement. The diaphragm design eliminates the possibility of taking a “set”, a common problem with boot style regulators. To prevent damage, the diaphragm is fully supported in both the open and closed positions. These features enable the Type EZR components to work longer with less wear.

Full Usable Capacity—Fisher™ relief valves and backpressure regulators are laboratory tested. 100 percent of the published flow capacities can be used with confidence.

Easy In-Line Maintenance—Top-entry design reduces maintenance time. Trim parts can be inspected, cleaned and replaced without removing the body from the pipeline. No special alignment is required when replacing the diaphragm. The Type EZR incorporates E-body construction, making it easy to change out existing E-body relief valves and backpressure regulators with a Type EZR trim kit.

Tight Shutoff—The Type EZR uses a diaphragm and metal plug, eliminating the disadvantages of the boot-style relief valves and backpressure regulators. When open, the metal plug deflects particles and debris away from the diaphragm. The result is enhanced resistance to particle erosion which provides excellent shutoff over an extended life. When closed, loading pressure and the main spring push the diaphragm onto the tapered edge seat on the cage to maintain tight shutoff.

Type EZR

Specifications

This section lists the specifications for the Type EZR relief valve or backpressure regulator. Factory specifications are stamped on the nameplate fastened on the relief valve or backpressure regulator at the factory.

Main Valve Body Sizes, End Connection Styles and Body Ratings⁽¹⁾

See Table 1

Maximum Relief (Inlet) Pressure⁽¹⁾

See Table 6

Minimum Relief Set Pressure⁽²⁾

20 psig / 1.4 bar

Set Pressure Ranges⁽²⁾

See Table 2

Main Valve Flow Coefficients

See Table 9

Diaphragm Selection⁽¹⁾

See Tables 4 through 6

Reseat Pressures

See Table 7

Main Valve Flow Direction

Up through the center of the cage down through cage slots

Typical Main Valve Flow Capacities

See Table 11

Main Valve Flow Characteristics

Linear

Pressure Registration

External through upstream control line

Upstream Control Line Connection

1/4 NPT in pilot body

Pilot Spring Case Vent Connection

1/4 NPT tapping

Process Temperature Capabilities⁽¹⁾

See Table 5

IEC Sizing Coefficients

See Table 10

Approximate Weights

See Table 14

Options

- Pre-piped Pilot Supply and Pilot Bleed
- Travel Indicator
- Inlet Strainer
- Type 252 Pilot Supply Filter
- Trim Package

Construction Materials

Type EZR Main Valve

Body: Cast iron, WCC steel or LCC steel

Bonnet: LF2 Steel

Bonnet Bushing: 416 Stainless steel

Cage: 15-5 Stainless steel

Construction Materials (continued)

Type EZR Main Valve (continued)

Spring: Zinc-plated steel or 17-7 Stainless steel

Top Plug: 17-4 Stainless steel

Bottom Plug: 416 Stainless steel

Inlet Strainer: 316 Stainless steel

Strainer Replacement Shim: 18-8 Stainless steel

Diaphragm: Nitrile (NBR) or Fluorocarbon (FKM)

O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

Flanged Locknut: Alloy-plated steel

Backup Rings: Polytetrafluoroethylene (PTFE)

Upper Spring Seat: 416 Stainless steel

Indicator Stem: 303 Stainless steel

Indicator Protector and Cover: Plastic

Indicator Fitting: 416 Stainless steel

Travel Indicator Plug: 416 Stainless steel

6358 Series Pilots

Body: CF8M Stainless steel

Spring Case: CF8M Stainless steel

Body Plug: 303 Stainless steel

Valve Plug: Nitrile (NBR) or Fluorocarbon (FKM)

plug with stainless steel stem

Spring: Zinc-plated steel

Diaphragm: Nitrile (NBR) or Fluorocarbon (FKM)

Spring Seat: Zinc-plated steel

Stem Guide: Stainless steel

Adjusting Screw: Zinc-plated steel

O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

Lower Spring Seat: Thermoplastic (Types 63EB and 63EBH only)

Diaphragm Limiter: Stainless steel (Type 6358EB only)

PRX Series Pilots

Body: Steel, ASTM 105

Trim: Stainless steel

Elastomers: Nitrile (NBR) or Fluorocarbon (FKM)

Disk Material: Polyurethane (PU) or Fluorocarbon (FKM)

Type 252 Pilot Supply Filter

Body: Aluminum or Stainless steel

Filter Cartridge: Polyethylene

Upper and Lower Seats: Delrin®

Drain Valve or Pipe Plug: 316 Stainless steel

O-ring: Nitrile (NBR)

Mounting Parts

Pilot Mounting Pipe Nipple: Plated steel

Tubing: Stainless steel

Fittings: Stainless steel

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.

2. Set pressure is defined as the pressure at which the pilot starts-to-discharge.



W7398

TYPE EZR TRIM PACKAGE

- **Powder Paint Coating**—Fisher™ branded products are powder paint coated, offering impact, abrasion and corrosion resistance.
- **Fast Pilot Reseat**—The fixed restriction in the Types 6358B, 6358EB and 6358EBH pilots allows the valve plug to quickly reseal after operation.
- **Thorough Laboratory Testing**—Emerson Process Management Regulator Technologies, Inc. (Emerson) state-of-the-art technical center and flow laboratory allow thorough testing of all new regulator designs. Emerson conducts performance tests such as flow, shutoff, material compatibility and noise abatement.
- **Debris Protection**—The specially engineered flow path, along with the metal plug, allow flow through the body without seat impingement.

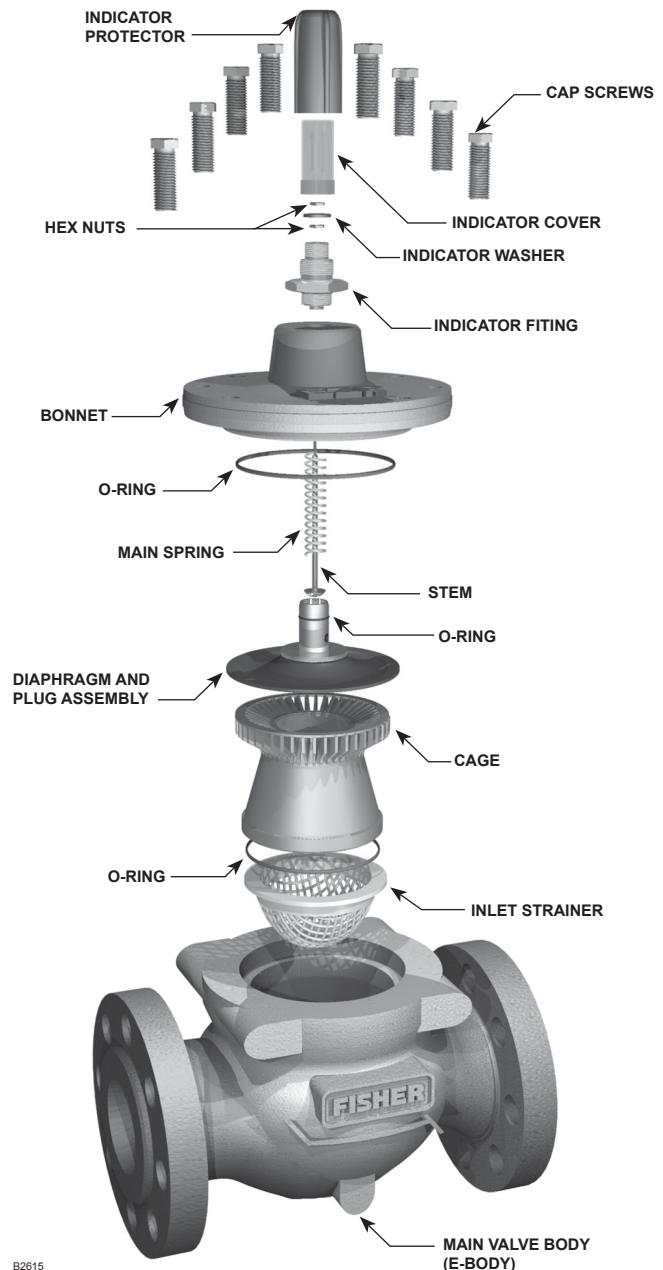
Introduction

The Type EZR pilot-operated, pressure relief valve or backpressure regulator is typically used in city gate and district stations as a relief valve for overpressure protection or in commercial and industrial applications as a backpressure regulator. The Type EZR provides smooth, quiet operation, tight shutoff and long life, even in dirty service. Its internally actuated metal plug eliminates disadvantages associated with boot-style relief valves and backpressure regulators. The specially engineered flow path deflects debris, protecting the seat from damage and erosion. The Type EZR relief valve or backpressure regulator can be converted to a pressure reducing regulator simply by changing to a pressure reducing piloting system (see Bulletin 71.2:EZR).

Principle of Operation

A pressure relief valve is a throttling pressure control device that opens to ensure the upstream pressure does not rise above a pre-determined pressure. A backpressure regulator is a device that controls and responds to changes in the upstream pressure. It functions the same as a relief valve in that it opens on increasing upstream pressure.

Type EZR relief valves cannot be used as ASME safety relief valves.



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TYPE EZR MAIN BODY ASSEMBLY DIAGRAM

Figure 2. Type EZR Internal Views

Relief Valve

As long as the inlet pressure is below the set pressure, the Type 6358B, 6358EB, 6358EBH or PRX/182 pilot control spring keeps the pilot valve plug closed. Inlet pressure passes through the pilot restriction and registers as loading pressure on top of the Type EZR diaphragm and plug assembly. Force from the main spring, in addition to inlet pressure bleeding through the pilot restriction, provides a downward loading pressure to keep the main valve diaphragm and plug assembly tightly shutoff.

Type EZR

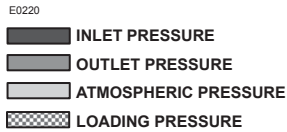
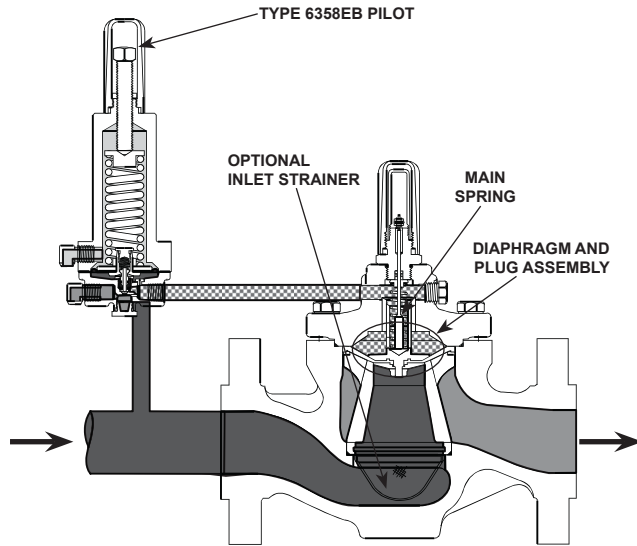


Figure 3. Type EZR Operational Schematic

When the inlet pressure rises above the set pressure, the pressure on the pilot diaphragm overcomes the pilot control spring and opens the pilot valve plug. The pilot then exhausts the loading pressure from the top of the main valve diaphragm and plug assembly. The inlet pressure unbalance overcomes the main spring force and opens the diaphragm and plug assembly.

The pilot continuously exhausts gas when the inlet pressure is above the set pressure.

As the inlet pressure drops below the set pressure, the pilot control spring closes the pilot valve plug and the exhaust to atmosphere stops. Force from the main spring, along with pilot loading pressure, pushes the diaphragm and plug assembly onto the tapered edge seat, producing tight shutoff.

Backpressure Regulator

As long as inlet pressure remains below set pressure, the Type 6358 pilot control spring keeps the pilot valve plug closed. Inlet pressure passes through the upper port around the upper portion of the pilot valve plug and then through the hollow passage of that valve plug. Force from the main spring, in addition to inlet pressure bleeding through the pilot, provides downward loading pressure to keep the main valve diaphragm and plug assembly tightly shutoff.

When inlet pressure rises above the set pressure, pressure on the pilot diaphragm overcomes the control spring to close the upper port and stroke the valve plug to open the lower port. The pilot then exhausts loading pressure from the top of the main valve diaphragm. Inlet pressure unbalance overcomes the main spring force to open the main valve diaphragm and plug assembly.

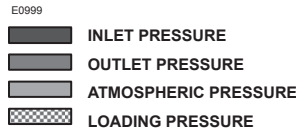
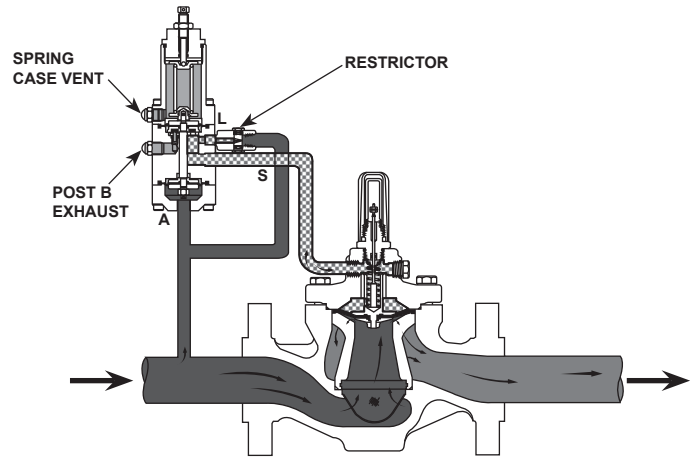


Figure 4. Type EZR Relief with Type PRX/182 Pilot

While the main valve is throttling, the upper port of the pilot stays closed. The pilot exhausts only when it repositions the main valve. As inlet pressure drops below set pressure, the pilot control spring overcomes the diaphragm force to stroke the valve plug down to close the lower port and open the upper port. Force from the main spring, along with pilot loading pressure, pushes the diaphragm and plug assembly onto the tapered edge seat, producing tight shutoff.

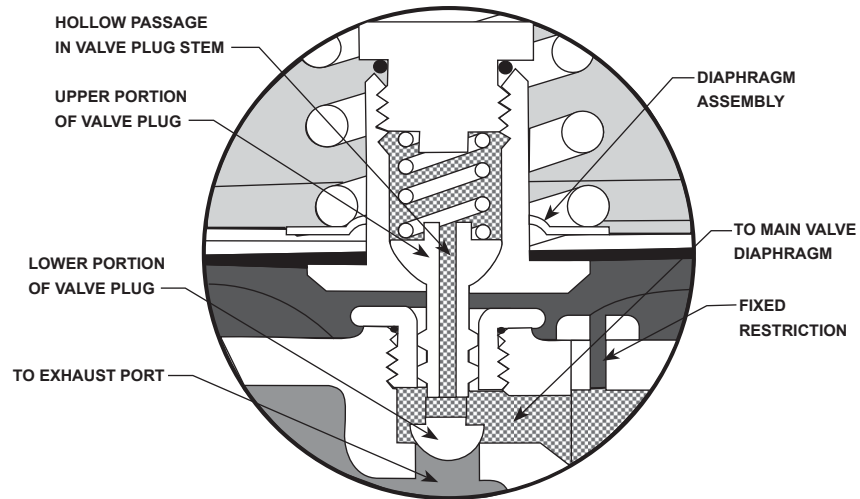
Pilot Descriptions

The following pilot configurations are available for the Type EZR relief valve or backpressure regulator.

Relief Valve

The Type EZR relief valve uses the Types 6358B, 6358EB, 6358EBH and PRX/182 relief pilots. The pilot bleeds constantly while the relief valve is in operation. The pilot does not bleed when inlet pressure is below set pressure. The pilot exhaust can be connected directly to the main valve exhaust pipe if the pilot connection and the exhaust pipe are designed to prevent significant backpressure build-up during full flow conditions.

The pilot restriction code is indicated by a letter stamped on the bottom of the pilot body: an H for the yellow, small-diameter, high gain restriction (standard); S for the red, medium diameter, medium gain restriction and L for the blue, large-diameter, low gain restriction. The high gain restriction has the lowest build ups and fastest speed of response.



EXPANDED VIEW OF THE TYPE 6358B RELIEF PILOT DIAPHRAGM ASSEMBLY AND VALVE PLUG

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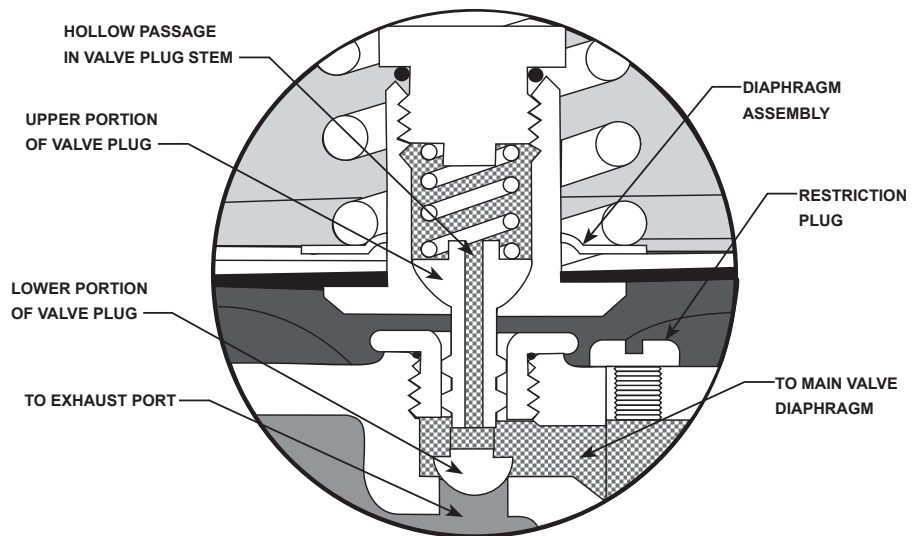
-  INLET PRESSURE
-  OUTLET (EXHAUST) PRESSURE
-  ATMOSPHERIC PRESSURE
-  LOADING PRESSURE

Figure 5. Type 6358B Operational Schematic



EXPANDED VIEW OF THE TYPE 6358 BACKPRESSURE PILOT DIAPHRAGM ASSEMBLY AND VALVE PLUG

A2787_4





-  INLET PRESSURE
-  OUTLET (EXHAUST) PRESSURE
-  ATMOSPHERIC PRESSURE
-  LOADING PRESSURE

Figure 6. Type 6358 Operational Schematic

Type EZR

Table 1. Main Valve Body Sizes, End Connection Styles and Body Ratings

MAIN VALVE BODY SIZE		MAIN VALVE BODY MATERIAL	END CONNECTION STYLE ⁽¹⁾	STRUCTURAL DESIGN RATING ⁽²⁾	
NPS	DN			psig	bar
2, 3, 4 and 6	50, 80, 100 and 150	Cast iron	NPT (NPS 2 / DN 50 only)	400	27.6
			CL125 FF	200	13.8
1, 2, 3, 4 and 6	25, 50, 80, 100 and 150	WCC Steel	NPT or SWE (NPS 1 and 2 / DN 25 and 50 only)	1480	102
			CL150 RF	285	19.7
			CL300 RF	740	51.0
			CL600 RF or BWE	1480	102
8	200	LCC Steel	CL150 RF	285	19.7
			CL300 RF	740	51.0
			CL600 RF	1480	102

1. Ratings and end connections for other than ANSI standard can usually be provided. Contact your local Sales Office for assistance.
2. See Tables 3, 4, 5, 6 and 7 for diaphragm materials and additional pressure ratings.

Type 6358B—Set pressure range from 20 to 125 psig / 1.4 to 8.6 bar in two ranges. This pilot is available with a high, medium or low gain restriction.

Type 6358EB—Set pressure range of 75 to 350 psig / 5.2 to 24.1 bar in three ranges. To achieve higher pressure and accuracy, this pilot has an extended spring case to accommodate longer springs. This pilot is available with a high or low gain restriction.

Type 6358EBH—The high pressure version of the Type 6358EB pilot with a set pressure range of 250 to 600 psig / 17.2 to 41.4 bar in two ranges. This pilot is available with a high or low gain restriction.

Type PRX/182—The set pressure range from 29 to 609 psig / 2.0 to 41.7 bar.

Type PRX-AP/182—The set pressure range from 435 to 1160 psig / 30.0 to 80.0 bar.

Backpressure Regulator

The Type 6358 is a low bleed pilot, so it only exhausts while it is repositioning the main valve. There is no constant bleed with this construction which is useful for backpressure applications where minimizing emissions is important and the pilot exhaust can not be piped to the downstream piping. This also minimizes dirt build-up in the pilot. The Type 6358 has a set pressure range of 20 to 125 psig / 1.4 to 8.6 bar in two ranges. The Types 6358B, 6358EB, 6358EBH and PRX/182 pilots can also be used in backpressure applications but they will exhaust any time inlet pressure is above setpoint.

Optional Travel Indicator

The travel indicator responds with the precise movement of the diaphragm and plug assembly to show actual valve position. A travel indicator can be used for in-line inspection and troubleshooting and remote stem positioning and alarming when combined with the Type 4310 or 4320 wireless position monitor.

Optional Inlet Strainer

The stainless steel inlet strainer is designed with holes smaller than the cage slots to prevent pipeline debris from becoming trapped in the main valve body. Once trapped in the body, the debris can clog the cage slot affecting shutoff performance. An inlet strainer is typically not used in relief applications because debris clogging the strainer can restrict the flow.

Optional Pilot Supply Filter

The Type 252 pilot supply filter prevents pipeline debris from entering the pilot; a primary cause of pilot clogging. The aluminum body is rated at 2150 psig / 148 bar and the stainless steel body at 2750 psig / 190 bar. Both are available in standard or extended length with a pipe plug or a drain valve. When the upstream system is free of debris, the Type EZR may be installed without a filter. A pilot supply filter is not typically used in relief applications because filter plugging may hamper pilot operation.

Capacity Information

Tables 11 and 12 show the natural gas relief capacities of the Type EZR relief valve or backpressure regulator at selected inlet pressures and outlet pressure settings. Flows are in SCFH (at 60°F and 14.7 psia) and Nm³/h (at 0°C and 1.01325 bar) of 0.6 specific gravity natural gas. To determine equivalent capacities for air, propane, butane or nitrogen, multiply the capacity by the following appropriate conversion factor: 0.775 for air, 0.628 for propane, 0.548 for butane or 0.789 for nitrogen. For gases of other specific gravities, multiply the given capacity by 0.775 and divide by the square root of the appropriate specific gravity.

To find approximate relief capacities at set pressures or build-ups not given in Table 2 or 8, use one of the following formulas and, if necessary, convert according to the factors in the paragraph above. Then, if capacity is desired in normal cubic meters per hour at 0°C and 1.01325 bar, multiply SCFH by 0.0268.

Table 2. Set Pressure Ranges, Pilot Pressure Ratings and Pilot Information⁽¹⁾

PILOT TYPE	RELIEF SET PRESSURE RANGE		PILOT CONTROL INFORMATION									
			Part Number	Color	Wire Diameter		Free Length		Maximum Operating Pressure		Maximum Emergency Pressure	
	psig	bar			In.	mm	In.	mm	psig	bar	psig	bar
6358 and 6358B	20 to 40 35 to 125 ⁽³⁾	1.4 to 2.8 2.4 to 8.6 ⁽³⁾	1E392527022 1K748527202 ⁽³⁾	Yellow Red	0.148 0.187	3.76 4.75	2.00 2.19	50.8 55.6	150	10.3	150	10.3
6358EB	75 to 140 130 to 200 180 to 350	5.2 to 9.7 9.0 to 13.8 12.4 to 24.1	17B1261X012 17B1263X012 17B1264X012	Green Blue Red	0.225 0.262 0.294	5.72 6.65 7.47	3.70 3.85 4.22	94.0 97.8 107.2	650	44.8	750	51.7
6358EBH	250 to 450 400 to 600 ⁽²⁾	17.3 to 31.0 27.6 to 41.4 ⁽²⁾	17B1263X012 17B1264X012	Blue Red	0.262 0.294	6.65 7.47	3.85 4.22	97.8 107.2	650	44.8	750	51.7
PRX/182	29 to 116 73 to 290 217 to 609	2.0 to 8.0 5.0 to 20.0 15.0 to 42.0	M0255220X12 M0255200X12 M0255190X12	Black Gold Red	0.157 0.217 0.256	4.00 5.50 6.50	2.16 2.01 1.97	55.0 51.0 50.0	609	42.0	1480	102
PRX-AP/182	435 to 1160	30.0 to 80.0	M0273790X12	Clear	0.335	8.50	3.94	100	1160	80.0	1480	102

1. See the Main Valve Body Sizes, End Connections, Structural Design Ratings tables and the Main Valve Diaphragm and Spring Pressure Ratings table for additional pressure ratings.
2. Fluorocarbon (FKM) diaphragms are limited to 450 psig / 31.0 bar.
3. Regulator minimum differential pressure is approximately equal to minimum setpoint.

Table 3. Main Valve Minimum Differential Pressures⁽¹⁾

MAIN VALVE BODY SIZE		MAIN SPRING PART NUMBER AND COLOR	DIAPHRAGM MATERIAL	MINIMUM DIFFERENTIAL, PERCENT OF CAGE CAPACITY			
NPS	DN			FOR 90% CAPACITY		FOR 100% CAPACITY	
				100% Trim		100% Trim	
		psid	bar d	psid	bar d		
1	25	19B2400X012, Light Blue	17E68 and 17E88	24	1.7	24	1.7
		GE12727X012, Black	17E97	35	2.5	35	2.5
		17E68 and 17E88	30	2.1	30	2.1	
2	50	19B2401X012, Black with White Stripe ⁽³⁾	17E88 and 17E97	43	3.0	43	3.0
		19B0951X012, Yellow ⁽²⁾	17E68 and 17E88	12	0.83	12	0.83
		18B2126X012, Green	17E97	24	1.7	24	1.7
3	80	18B5955X012, Red ⁽³⁾	17E68 and 17E88	18	1.2	19	1.3
		GE05504X012, Purple ⁽³⁾	17E88 and 17E97	29	2.0	31	2.1
		T14184T0012, Yellow ⁽²⁾	17E68 and 17E88	16	1.1	23	1.6
4	100	19B0781X012, Light Blue	17E97	23	1.6	23	1.6
		17E68 and 17E88	21	1.4	28	1.9	
		19B0782X012, Black ⁽³⁾	17E88 and 17E97	32	2.2	38	2.6
6	150	T14184T0012, Yellow ⁽²⁾	17E68 and 17E88	10	0.69	25	1.7
		18B8501X012, Green	17E97	16	1.1	34	2.3
		17E68 and 17E88	16	1.1	30	2.1	
8	200	18B8502X012, Red ⁽³⁾	17E88 and 17E97	21	1.5	40	2.8
		19B0364X012, Yellow ⁽²⁾	17E97	10	0.69	12	0.83
		17E88	10	0.69	12	0.83	
8	200	19B0366X012, Green	17E97	14	0.97	19	1.3
		17E88	17	1.2	20	1.4	
		19B0365X012, Red ⁽³⁾	17E88 and 17E97	23	1.6	30	2.1
8	200	GE09393X012, Yellow ⁽²⁾	17E97	16	1.1	19	1.3
		GE09396X012, Green	17E97	20	1.4	23	1.6
		GE09397X012, Red ⁽³⁾	17E97	26	1.8	30	2.1

1. See Table 1 for structural design ratings, Table 2 for pilot ratings and Table 6 for maximum pressure ratings.
2. The white and yellow springs are only recommended for inlet pressures under 100 psig / 6.9 bar.
3. The red, black, purple, red stripe and black with white stripe springs are only recommended for applications where the maximum inlet pressure can exceed 500 psig / 34.5 bar.

Critical Pressure Drops

For critical pressure drops (absolute outlet pressure equal to or less than one-half of absolute inlet pressure), use the following formula:

$$Q = (P_1 + \text{Build-up})_{\text{abs}} C_g \sqrt{\frac{520}{GT}}$$

Non-Critical Pressure Drops

For pressure drops lower than critical (absolute outlet pressure greater than one-half of absolute inlet pressure), use the following formula:

$$Q = \sqrt{\frac{520}{GT}} C_g (P_1 + \text{Build-up})_{\text{abs}} \text{SIN} \left(\frac{3417}{C_1} \sqrt{\frac{\Delta P}{P_1 + \text{Build-up}}} \right) \text{Deg}$$

where,

- Q = flow capacity in SCFH
- G = specific gravity of gas
- T = absolute temperature of gas at inlet in degrees Rankine
- C_g = gas sizing coefficient from Table 9
- P_{1abs} = absolute inlet pressure in psia (P₁ gauge + 14.7)
- C₁ = C_g/C_v from Table 9
- ΔP = pressure drop across the valve in psi

Type EZR

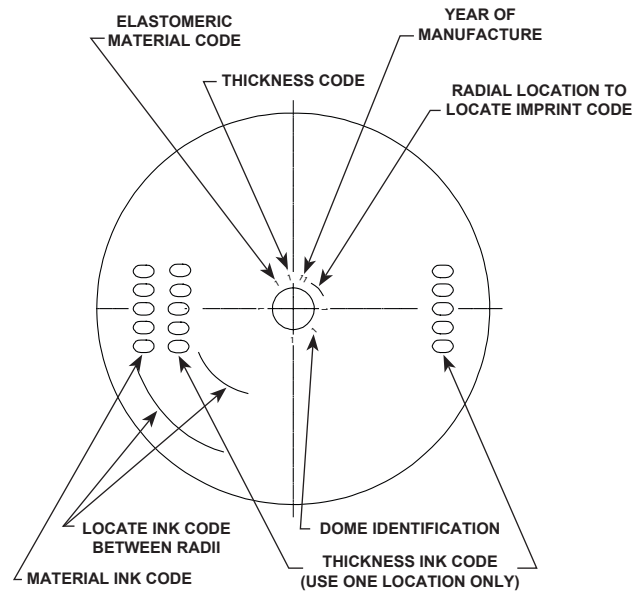


Figure 7. Diaphragm Markings

Table 4. Diaphragm Imprint Codes

THICKNESS		MATERIAL		DIAPHRAGM MATERIAL
Imprint	Ink Code	Imprint	Ink Code	
2	130	2	17E68	17E68 - Nitrile (NBR) (low temperature)
		4	17E88	17E88 - Fluorocarbon (FKM) (High aromatic hydrocarbon content resistance)
		5	17E97	17E97 - Nitrile (NBR) (High-pressure and/or erosion resistance)

Table 5. Diaphragm Temperature Capabilities, Erosion Resistance and Chemical Compatibility

	17E68 NITRILE (NBR)	17E97 ⁽³⁾ NITRILE (NBR)	17E88 FLUOROCARBON (FKM)
Gas Temperature (for lower temperatures contact your local Sales Office)	-20 to 150°F / -29 to 66°C	0 to 150°F / -18 to 66°C	0 to 260°F / -18 to 127°C ⁽¹⁾
General Applications	Best for cold temperatures.	Best for high pressure conditions, i.e. transmission service or high pressure industrial service. It is also the best for abrasive or erosive service applications.	Best for natural gas having Aromatic hydrocarbons. It is also the best for high temperature applications.
Heavy Particle Erosion	Fair	Excellent	Good
Natural Gas with:			
Up to 3% Aromatic hydrocarbon content ⁽²⁾	Good	Excellent	Excellent
3 to 15% Aromatic hydrocarbon content ⁽²⁾	Poor	Good	Excellent
15 to 50% Aromatic hydrocarbon content ⁽²⁾	Not recommended	Poor	Excellent
Up to 3% H ₂ S (Hydrogen sulfide or sour gas)	Good	Good	Good
Up to 3% ketone	Fair	Fair	Fair
Up to 10% alcohol	Good	Good	Fair
Up to 3% synthetic lube	Fair	Fair	Good

1. For differential pressures above 400 psig / 27.6 bar diaphragm temperature is limited to 150°F / 66°C.

2. The Aromatic hydrocarbon content is based on percent volume.

3. The NPS 6 / DN 150 17E97 diaphragm will perform in gas temperatures as low as -20°F / -29°C.

Table 6. Main Valve Maximum Pressure Ratings, Diaphragm Selection Information and Main Spring Selection⁽¹⁾

BODY SIZE		DIAPHRAGM MATERIAL	MAXIMUM OPERATING INLET PRESSURE ⁽⁴⁾		MAXIMUM OPERATING DIFFERENTIAL PRESSURE ⁽⁴⁾		MAXIMUM EMERGENCY INLET AND DIFFERENTIAL PRESSURE		MAIN SPRING COLOR	DIAPHRAGM STYLE
			psig	bar	psid	bar d	psid	bar d		
1	25	17E68 Nitrile (NBR) Low temperature	100	6.9	100	6.9	100	6.9	Light Blue	130
			460	31.7	400	27.6	460	31.7	Black	
		17E97 Nitrile (NBR) High-pressure and/or erosion resistance	500	34.5	500	34.5	1050	72.4	Black	
			1050	72.4	800	55.2	1050	72.4	Black with White Stripe ⁽²⁾	
		17E88 Fluorocarbon (FKM) High aromatic hydrocarbon content resistance	100	6.9	100	6.9	100	6.9	Light Blue	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Black	
750	51.7	500	34.5 ⁽³⁾	750	51.7	Black with White Stripe ⁽²⁾				
2	50	17E68 Nitrile (NBR) Low temperature	100	6.9	100	6.9	100	6.9	Yellow	
			460	31.7	400	27.6	460	31.7	Green	
		17E97 Nitrile (NBR) High-pressure and/or erosion resistance	500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red or Purple ⁽²⁾	
		17E88 Fluorocarbon (FKM) High aromatic hydrocarbon content resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Green	
750	51.7	500	34.5 ⁽³⁾	750	51.7	Red or Purple ⁽²⁾				
3	80	17E68 Nitrile (NBR) Low temperature	100	6.9	100	6.9	100	6.9	Yellow	
			360	24.8	300	20.7	500	34.5	Light Blue	
		17E97 Nitrile (NBR) High-pressure and/or erosion resistance	500	34.5	500	34.5	1050	72.4	Light Blue	
			1050	72.4	800	55.2	1050	72.4	Black ⁽²⁾	
		17E88 Fluorocarbon (FKM) High aromatic hydrocarbon content resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Light Blue	
750	51.7	500	34.5 ⁽³⁾	750	51.7	Black ⁽²⁾				
4	100	17E68 Nitrile (NBR) Low temperature	100	6.9	100	6.9	100	6.9	Yellow	
			360	24.8	300	20.7	500	34.5	Green	
		17E97 Nitrile (NBR) High-pressure and/or erosion resistance	500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾	
		17E88 Fluorocarbon (FKM) High aromatic hydrocarbon content resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Green	
750	51.7	500	34.5 ⁽³⁾	750	51.7	Red ⁽²⁾				
6	150	17E97 Nitrile (NBR) High-pressure and/or erosion resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾	
		17E88 Fluorocarbon (FKM) High aromatic hydrocarbon content resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Green	
			750	51.7	500	34.5 ⁽³⁾	750	51.7	Red ⁽²⁾	
8	200	17E97 Nitrile (NBR) High-pressure and/or erosion resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾	

1. See Table 1 for main valve structural design ratings and Table 2 for pilot ratings.

2. The red, black, purple, red stripe and black with white stripe springs are only recommended for applications where the maximum inlet pressure can exceed 500 psig / 34.5 bar.

3. For differential pressures above 400 psid / 27.6 bar d diaphragm temperatures are limited to 150°F / 66°C.

4. These are recommendations that provide the best regulator performance for a typical application. Please contact your local Sales Office for further information if a deviation from the standard recommendations are required.

Type EZR

Table 7. Pilot Information for 6358 Series Pilot

PILOT TYPE	SET PRESSURE RANGE ⁽⁵⁾ , SPRING PART NUMBER AND COLOR	MAIN VALVE SPRING COLOR	SET PRESSURE ⁽¹⁾		BUILD-UP OVER SET PRESSURE NEEDED TO BEGIN OPENING MAIN VALVE ⁽²⁾		BUILD-UP OVER SET PRESSURE NEEDED TO FULLY OPEN MAIN VALVE ⁽³⁾		PRESSURE DROP BELOW SET PRESSURE NEEDED TO RESEAT PILOT	
			psig	bar	psig	bar	psig	bar	psig	bar
6358	20 to 40 psig / 1.4 to 2.8 bar 1E392527022, Yellow	Green, Light Blue or Yellow Green, Light Blue or Yellow Green, Light Blue or Yellow Green, Light Blue or Yellow	20 25 30 40	1.4 1.7 2.1 2.8	1.0	69 mbar	2.0	0.14	5.0	0.34
	35 to 125 psig / 2.4 to 8.6 bar ⁽⁵⁾ 1K748527202, Red	Green, Light Blue or Yellow Green, Light Blue or Yellow Green, Light Blue or Yellow Green or Light Blue Green or Light Blue	40 60 80 100 125	2.8 4.1 5.5 6.9 8.6	1.4 1.4 1.5 1.6 1.6	0.10 0.10 0.10 0.11 0.11	2.5 2.5 2.8 3.0 3.0	0.17 0.17 0.19 0.21 0.21	5.0	0.34
6358B	20 to 40 psig / 1.4 to 2.8 bar 1E392527022, Yellow	Green, Light Blue or Yellow Green, Light Blue or Yellow Green, Light Blue or Yellow Green, Light Blue or Yellow	20 25 30 40	1.4 1.7 2.1 2.8	1.0 1.0 1.0 1.0	69 mbar 69 mbar 69 mbar 69 mbar	2.0 2.0 2.0 2.0	0.14 0.14 0.14 0.14	1.0	69 mbar
	35 to 125 psig / 2.4 to 8.6 bar ⁽⁵⁾ 1K748527202, Red	Green, Light Blue or Yellow Green, Light Blue or Yellow Green, Light Blue or Yellow Green or Light Blue Green or Light Blue	40 60 80 100 125	2.8 4.1 5.5 6.9 8.6	1.4 1.4 1.5 1.6 1.6	0.10 0.10 0.10 0.11 0.11	2.5 2.5 2.8 3.0 3.0	0.17 0.17 0.19 0.21 0.21	1.0	69 mbar
6358EB	75 to 140 psig / 5.2 to 9.7 bar 17B1261X012, Green	Green, Light Blue or Yellow Green or Light Blue Green or Light Blue Green or Light Blue	75 100 125 140	5.2 6.9 8.6 9.7	1.7 1.7 2.1 2.4	0.12 0.12 0.14 0.17	3.0 3.0 3.5 4.0	0.21 0.21 0.24 0.28	2.0	0.14
	130 to 200 psig / 9.0 to 13.8 bar 17B1263X012, Blue	Green or Light Blue Green or Light Blue Green or Light Blue Green or Light Blue	140 150 175 200	9.7 10.3 12.1 13.8	3.0 3.5 4.5 5.0	0.21 0.24 0.31 0.34	5.0 5.5 6.5 7.5	0.34 0.38 0.45 0.52	3.0	0.21
	180 to 350 psig / 12.4 to 24.1 bar 17B1264X012, Red	Green or Light Blue Green or Light Blue Green or Light Blue Green or Light Blue Green or Light Blue Green or Light Blue	200 225 250 275 300 325 350	13.8 15.5 17.2 19.0 20.7 22.4 24.1	5.0 5.0 5.5 5.5 5.5 5.5	0.34 0.34 0.34 0.38 0.38 0.38 0.38	8.0 8.0 8.5 8.5 8.5 9.0 9.0	0.55 0.55 0.59 0.59 0.59 0.62 0.62	3.0	0.21
6358EBH	250 to 450 psig / 17.2 to 31.0 bar ⁽⁴⁾ 17B1263X012, Blue	Green or Light Blue Green or Light Blue Green or Light Blue Green or Light Blue	350 375 400 425 450	24.1 25.9 27.6 29.3 31.0	6.0 6.0 6.5 7.0 7.5	0.41 0.41 0.45 0.48 0.52	9.5 9.5 10.0 10.5 11.0	0.66 0.66 0.69 0.72 0.76	6.0	0.41
	400 to 600 psig / 27.6 to 41.4 bar ⁽⁴⁾ 17B1264X012, Red	Green or Light Blue Red or Black Red or Black Red or Black	450 500 550 600	31.0 34.5 37.9 41.4	7.5 8.0 8.5 9.0	0.52 0.55 0.59 0.62	11.5 12.0 13.0 14.0	0.79 0.83 0.90 0.97	6.0	0.41

1. Set pressure is defined as the pressure at which the pilot starts-to-discharge.
2. Crack point pressure of the main valve or the inlet pressure build-up over the set pressure at which the main valve starts audible flow.
3. Inlet pressure build-up over the set pressure for the main valve to achieve wide-open flow capacity.
4. The maximum operating pressure for Fluorocarbon (FKM) pilot diaphragms is limited to 450 psig / 31.0 bar.
5. Regulator minimum differential pressure is approximately equal to minimum setpoint.

Table 8. PRX Series Pilot Set Pressure Build Up

PILOT TYPE	SET PRESSURE CONTROL RANGE, SPRING PART NUMBER AND COLOR	MAIN VALVE SPRING COLOR	SET PRESSURE ⁽¹⁾		BUILD-UP OVER SET PRESSURE NEEDED TO BEGIN OPENING MAIN VALVE ⁽²⁾		BUILD-UP OVER SET PRESSURE NEEDED TO FULLY OPEN MAIN VALVE ⁽³⁾		PRESSURE DROP BELOW SET PRESSURE NEEDED TO RESEAT PILOT	
			psig	bar	psig	bar	psig	bar	psig	bar
PRX/182	29 to 116 psig / 2.0 to 8.0 bar M0255220X12, Black	Green or Light Blue	30	2.1	1.9	0.13	3.3	0.23	1.4	0.10
			60	4.1	2.2	0.15	3.6	0.25		
			80	5.5	2.2	0.15	4.0	0.27		
			100	6.9	2.4	0.17	4.2	0.29		
	73 to 290 psig / 5.0 to 20.0 bar M0255200X12, Gold	Green or Light Blue	75	5.2	2.5	0.17	4.1	0.28	1.6	0.11
			100	6.9	3.0	0.21	5.7	0.40		
			150	10.3	3.7	0.26	7.7	0.53		
			200	13.8	4.0	0.27	7.9	0.55		
			250	17.2	4.1	0.28	9.1	0.63		
217 to 609 psig / 15.0 to 42.0 bar M0255190X12, Red	Green or Light Blue	225	15.5	4.1	0.28	10.4	0.72	2.1	0.14	
		300	20.7	4.3	0.29	12.6	0.87			
		400	27.6	4.4	0.30	14.4	0.99			
		450	31.0	4.4	0.30	16.7	1.15			
PRX-AP/182	435 to 1160 psig / 30.0 to 80.0 bar M0273790X12, Clear	Green or Light Blue	450	31.0	5.2	0.36	17.9	1.2	3.1	0.21
		Red or Black	500	34.5	5.6	0.39	18.1	1.2	3.1	0.21
			600	41.4	5.5	0.38	19.9	1.4		
			1050	72.4	7.8	0.54	25.0	1.7		

1. Set pressure is defined as the pressure at which the pilot starts-to-discharge.
 2. Crack point pressure of the main valve of the inlet pressure build-up over the set pressure at which the main valve starts audible flow.
 3. Inlet pressure build-up over the set pressure for the main valve to achieve wide-open flow capacity.

Table 9. Main Valve Regulating Flow Coefficients⁽¹⁾ for Type EZR

MAIN VALVE BODY SIZE		LINE SIZE EQUALS BODY SIZE PIPING						2:1 LINE SIZE TO BODY SIZE PIPING					
NPS	DN	With Inlet Strainer			Without Inlet Strainer			With Inlet Strainer			Without Inlet Strainer		
		C _g	C _v	C _i	C _g	C _v	C _i	C _g	C _v	C _i	C _g	C _v	C _i
1	25	494	14.8	33.4	494	15.3	32.4	481	14.4	33.4	478	14.6	32.7
2	50	1890	50.8	37.2	1970	54.6	36.1	1800	50.4	35.7	1840	53.0	34.7
3	80	3550	91.4	38.8	3720	99.9	37.2	3390	90.6	37.4	3510	97.1	36.1
4	100	5690	147	38.7	5830	154	37.9	5540	145	38.2	5640	151	37.4
6	150	11,600	325	35.7	12,000	337	35.6	11,200	314	35.7	11,700	329	35.6
8	200	19,700	505	39	20,100	517	38.9	19,500	503	38.8	19,700	509	38.7

1. K_m for the NPS 1 / DN 25 body size is 0.88, the NPS 2 / DN 50 is 0.92, the NPS 3 / DN 80 is 0.94, the NPS 4 / DN 100 is 0.84 and the NPS 6 / DN 150 is 0.82.

Table 10. IEC Sizing Coefficients

BODY SIZE		X _r	F _D	F _L
NPS	DN			
1	25	0.706	0.06	0.94
2	50	0.875	0.09	0.96
3	80	0.952	0.09	0.97
4	100	0.947	0.09	0.92
6	150	0.806	0.09	0.91
8	200	0.96	0.10	0.89

Type EZR

Table 11. Capacities for Type 6358 Pilot

SET PRESSURE RANGE, SPRING PART NUMBER AND COLOR	SET PRESSURE ⁽¹⁾		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS WITH 2:1 LINE SIZE TO BODY SIZE PIPING WITHOUT INLET STRAIN											
	psig	bar	NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100		NPS 6 / DN 150		NPS 8 / DN 200	
			SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
20 to 40 psig / 1.4 to 2.8 bar 1E392527022, Yellow	20	1.4	24	0.6	87	2.3	166	4.4	267	7.2	496	13.3	864	23.2
	25	1.7	27	0.7	99	2.7	189	5.1	303	8.1	576	15.4	1000	26.8
	30	2.1	31	0.8	111	3.0	211	5.7	340	9.1	563	15.0	1133	30.4
	40	2.8	38	1.0	135	3.6	257	6.9	413	11.1	806	21.6	1396	37.4
35 to 125 psig / 2.4 to 8.6 bar 1K748527202, Red	40	2.8	38	1.0	140	3.8	267	7.2	429	11.5	806	21.6	1409	37.8
	60	4.1	52	1.4	183	4.9	350	9.4	562	15.1	1102	29.5	1926	51.7
	80	5.5	67	1.8	231	6.2	441	11.8	709	19.0	1392	37.3	2447	65.6
	100	6.9	81	2.2	279	7.5	533	14.3	856	22.9	1677	44.9	2964	79.5
75 to 140 psig / 5.2 to 9.7 bar 17B1261X012, Green	75	5.2	63	1.7	220	5.9	420	10.3	674	18.0	1320	34.4	2324	62.3
	100	6.9	81	2.2	279	7.5	533	14.3	856	22.9	1677	44.9	2964	79.5
	125	8.6	99	2.7	340	9.1	648	17.4	1042	27.9	2029	54.4	3615	96.9
	140	9.7	110	2.9	377	10.1	719	19.3	1155	31.0	2237	60.0	4010	107.5
130 to 200 psig / 9.0 to 13.8 bar 17B1263X012, Blue	140	9.7	110	2.9	379	10.2	723	19.4	1162	31.1	2237	60.0	4035	108.2
	150	10.3	117	3.1	404	10.8	771	20.7	1238	33.2	2375	63.6	4303	115.4
	175	12.1	136	3.6	466	12.5	888	23.8	1427	38.2	2716	72.8	4965	133.1
	200	13.8	154	4.1	527	14.2	1006	27.0	1617	43.3	3052	81.8	5627	150.9
180 to 350 psig / 12.4 to 24.2 bar 17B1264X012, Red	200	13.8	154	4.1	529	14.2	1008	27.0	1620	43.4	3052	81.8	5639	151.2
	225	15.5	173	4.6	588	15.8	1122	30.0	1802	48.3	3382	90.6	6275	168.3
	250	17.2	193	5.2	648	17.4	1237	33.2	1988	53.3	3708	99.4	6924	185.7
	275	19.0	212	5.7	708	19.0	1350	36.2	2170	58.2	4029	108	7560	202.7
	300	20.7	232	6.2	767	20.6	1463	39.2	2351	63.0	4345	116	8196	219.8
	325	22.4	252	6.8	828	22.2	1579	42.3	2537	68.0	4656	125	8844	237.1
250 to 450 psig / 17.2 to 31.0 bar ⁽²⁾ 17B1263X012, Blue	350	24.1	272	7.3	887	23.8	1692	45.3	2719	72.9	4962	133	9480	254.2
	350	24.1	272	7.3	888	23.8	1694	45.5	2732	73.0	4962	133	9492	254.5
	375	25.9	292	7.8	948	25.4	1808	48.5	2904	77.8	5263	141	10,128	271.6
	400	27.6	313	8.4	1008	27.1	1923	51.5	3090	82.8	5559	149	10,776	289.0
	425	29.3	334	8.9	1069	28.7	2038	54.6	3275	87.8	5850	157	11,424	306.3
400 to 600 psig / 27.6 to 41.4 bar ⁽²⁾ 17B1264X012, Red	450	31.0	355	9.5	1130	30.3	2156	57.8	3465	92.9	6137	165	12,085	324.1
	500	34.5	398	10.7	1250	33.6	2385	63.7	3832	103	6695	179	13,369	358.5
	550	37.9	442	11.8	1371	36.8	2616	70.1	4203	113	7233	194	14,665	393.2
	600	41.4	487	13.0	1492	40.1	2847	76.3	4574	123	7752	208	15,961	428.0

1. Set pressure is defined as the pressure at which the pilot starts-to-discharge.
2. The maximum operating pressure for Fluorocarbon (FKM) pilot diaphragms is limited to 450 psig / 31.0 bar.

Table 12. Capacities for Type PRX/182 Pilot

SET PRESSURE RANGE, SPRING PART NUMBER AND COLOR	SET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS WITH 2:1 LINE SIZE TO BODY SIZE PIPING WITHOUT INLET STRAIN											
	psig	bar	NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100		NPS 6 / DN 150		NPS 8 / DN 200	
			SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
29 to 116 psig / 2.0 to 8.0 bar M0255220X12, Black	30	2.1	31	0.8	116	3.1	215	5.8	344	9.2	721	19.3	1189	31.9
	60	4.1	52	1.4	196	5.3	364	9.8	583	15.6	1207	32.3	2017	54.1
	80	5.5	65	1.7	247	6.6	461	12.4	738	19.8	1522	40.8	2554	68.4
	100	6.9	79	2.1	301	8.1	561	15.0	898	24.1	1847	49.5	3107	83.3
73 to 290 psig / 5.0 to 20.0 bar M0255200X12, Gold	75	5.2	62	1.6	238	6.4	442	11.8	709	19.0	1462	39.2	2451	65.7
	100	6.9	79	2.1	303	8.1	565	15.1	905	24.3	1861	49.9	3131	83.9
	150	10.3	113	3.0	431	11.6	806	21.6	1291	34.6	2646	70.9	4468	119.7
	200	13.8	146	3.9	561	15.0	1048	28.1	1679	45.0	3436	92.1	5811	155.7
217 to 609 psig / 14.9 to 41.7 bar M0255190X12, Red	225	15.6	164	4.4	629	16.9	1177	31.5	1885	50.5	3855	103.3	6524	174.8
	300	20.7	214	5.7	819	21.9	1533	41.1	2455	65.8	5017	134.5	8498	227.7
	400	27.6	280	7.5	1071	28.7	2006	53.8	3213	86.1	6563	175.9	11,123	298.1
	450	31.0	313	8.4	1198	32.1	2244	60.1	3594	96.3	7339	196.7	12,440	333.4
435 to 1160 psig / 30.0 to 80.0 bar M0273790X12, Clear	450	31.0	313	8.4	1198	32.1	2244	60.1	3594	96.3	7339	196.7	12,440	333.4
	500	34.5	346	9.3	1324	35.5	2481	66.5	3973	106.5	8112	217.4	13,752	368.6
	600	41.4	411	11.0	1575	42.2	2953	79.14	4729	126.7	9654	258.7	16,371	438.7
	1050	72.4	707	18.9	2708	72.6	5078	136.1	8132	217.9	16,597	444.8	28,155	754.6

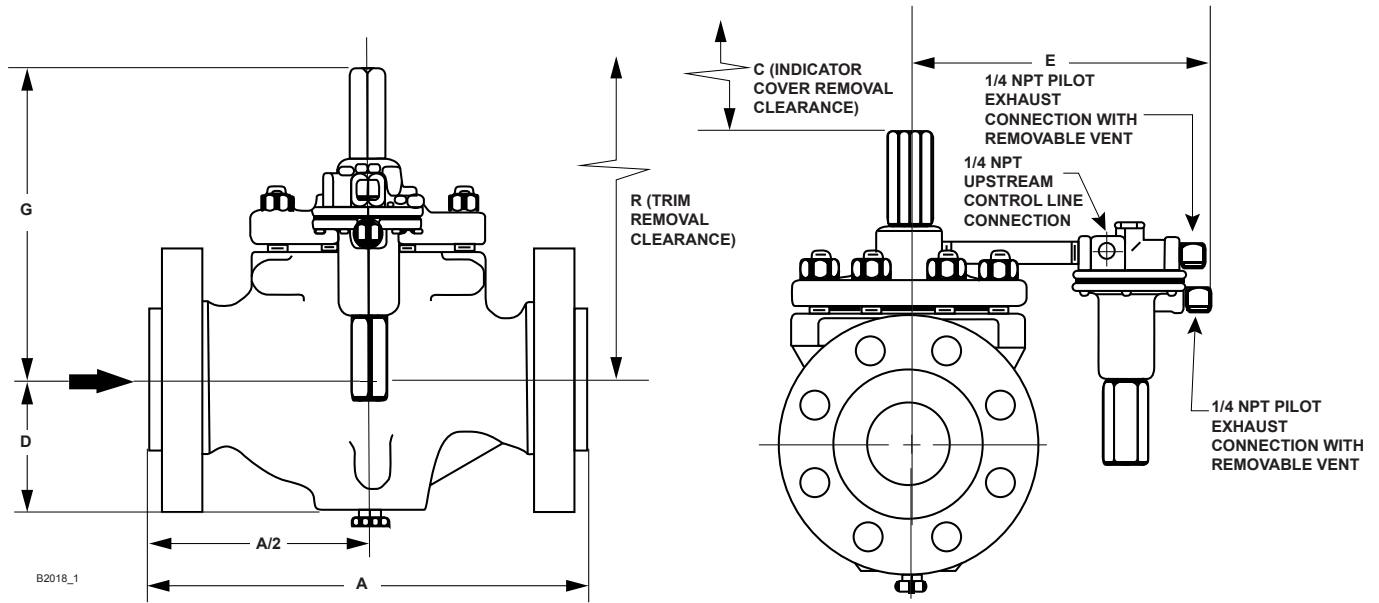


Figure 8. Dimensions

Table 13. Dimensions

BODY SIZE		DIMENSION																			
		A								C		D (Maximum)		E 6358 Series		E PRX Series		G		R	
		SWE or NPT		CL125 FF or CL150 RF		CL250 or CL300 RF		CL600 RF or BWE													
NPS	DN	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
1	25	8.25	210	7.25	184	7.75	197	8.25	210	2.00	51	2.38	60	7.44	189	6.54	166	8.65	220	9.87	251
2	50	11.25	286	10.00	254	10.50	267	11.25	286	2.00	51	3.06	78	7.44	189	11.13	283	9	229	11	279
3	80	----	----	11.75	298	12.5	317	13.25	337	3.75	95	3.81	97	8.19	208	13.6	334	13.3	338	5.9	150
4	100	----	----	13.9	353	14.5	368	15.5	394	3.75	95	5.06	129	8.45	215	14.53	369	14.7	373	20.7	526
6	150	----	----	17.8	452	18.6	472	20.0	508	3.8	96	5.5	140	10.88	276	16.49	419	15.2	386	32.8	833
8	200	----	----	21.9	558	22.4	570	24.0	610	4.5	114	8.25	210	15.6	397	15.44	392	20.6	522	38	965

Table 14. Approximate Weights

BODY SIZE		CAST IRON MAIN VALVE BODY						WCC OR LCC STEEL MAIN VALVE BODY							
		NPT		CL125 FF		CL250 RF		NPT, SWE or BWE		CL150 RF		CL300 RF		CL600 RF	
NPS	DN	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
1	25	23	10	22	10	29	13	23	10	22	10	28	13	32	15
2	50	52	24	50	23	59	27	51	23	54	25	58	26	65	30
3	80	----	----	89	40	106	48	103	47	107	49	110	50	123	56
4	100	----	----	140	63	155	70	139	63	145	66	159	72	192	87
6	150	----	----	205	93	225	102	200	91	210	95	235	107	350	159
8	200	----	----	----	----	----	----	----	----	635	288	685	310	790	358

Type EZR

Installation

Not all codes or regulations permit a Type EZR relief valve to be used as a final overpressure protection device. Make sure the installation will comply with all applicable codes and regulations.

A Type EZR relief valve or backpressure regulator may be installed in any orientation as long as flow through the body matches the flow arrow on the main valve. An upstream control line must be installed in the 1/4 NPT port on the pilot body.

If system operation is necessary during maintenance, install block and vent valves as needed.

Ordering Information

Refer to the Specifications section on page 2. Carefully review each specification then complete the Ordering Guide section on pages 18 and 19 and send it to your local Sales Office. If not otherwise specified, the pilot is factory set in the middle of the set pressure range.

Ordering Guide

Main Valve Body Size (Select One)

- NPS 1 / DN 25 (Available in steel only***)
- NPS 2 / DN 50***
- NPS 3 / DN 80***
- NPS 4 / DN 100***
- NPS 6 / DN 150***
- NPS 8 / DN 200***

Main Valve Body Material and End Connection

Style (Select One)

Cast Iron Body

- NPT (Available in NPS 2 only)***
- CL125 FF***

WCC Steel Body

- NPT (NPS 1 or 2 body only)***
- CL150 RF***
- CL300 RF***
- CL600 RF***
- SWE (Available in NPS 1 or 2 only)*
- BWE 40*
- PN 16/25/40* specify _____

Main Valve Main Spring (Select One)

NPS 1 / DN 25 Main Valve

- Light Blue, for inlet pressures under 100 psig / 6.9 bar***
- Black, for inlet pressures up to 500 psig / 34.5 bar***
- Black with white stripe, for inlet pressures over 500 psig / 34.5 bar***

NPS 2 / DN 50 Main Valve

- Yellow, for inlet pressures under 100 psig / 6.9 bar***
- Green, for inlet pressures up to 500 psig / 34.5 bar***
- Red or Purple, for inlet pressures over 500 psig / 34.5 bar***

NPS 3 / DN 80 Main Valve

- Yellow, for inlet pressures under 100 psig / 6.9 bar***
- Light Blue, for inlet pressures up to 500 psig / 34.5 bar***
- Black, for inlet pressures over 500 psig / 34.5 bar***

NPS 4 / DN 100

- Yellow, for inlet pressures under 100 psig / 6.9 bar***
- Green, for inlet pressures up to 500 psig / 34.5 bar***
- Red, for inlet pressures over 500 psig / 34.5 bar***

NPS 6 / DN 150

- Yellow, for inlet pressures under 100 psig / 6.9 bar***
- Green, for inlet pressures up to 500 psig / 34.5 bar***
- Red, for inlet pressures over 500 psig / 34.5 bar***

NPS 8 / DN 200

- Yellow, for inlet pressures under 100 psig / 6.9 bar***
- Green, for inlet pressures up to 500 psig / 34.5 bar***
- Red, for inlet pressures over 500 psig / 34.5 bar***

Ordering Guide (continued)

Main Valve Diaphragm Material (Select One)

- 17E68 Nitrile (NBR) (low temperature)
(Not available on NPS 6 or 8 / DN 150 or 200)***
- 17E97 Nitrile (NBR)
(high-pressure/erosion resistance)***
- 17E88 Fluorocarbon (FKM)
(high aromatic hydrocarbons)***
(Not available on NPS 8 / DN 200)

Main Valve O-ring Material (Select One)

- Nitrile (NBR) **(standard)*****
- Fluorocarbon (FKM)***

Inlet Strainer (Select One)

- No **(standard)*****
- Yes***

Inlet Body Tap (Select One)

- Inlet body tap only **(standard)*****
- Inlet body tap with pre-piped pilot supply***
- Inlet/outlet body taps only***
- Inlet/outlet body taps with pre-piped pilot supply and pilot bleed***

Travel Indicator (Select One)

- No **(standard)*****
- Yes***

Pilot Diaphragm and Valve Plug Material (Select One)

- Nitrile (NBR) **(standard)*****
- Fluorocarbon (FKM)**

Pilot O-ring Material (Select One)

- Nitrile (NBR) **(standard)*****
- Fluorocarbon (FKM)***

Pilot Type and Outlet Pressure Range (Select One)

Type 6358

- 20 to 40 psig / 1.4 to 2.8 bar, Yellow***
- 35 to 125 psig / 2.4 to 8.6 bar, Red***

Type 6358B

- 20 to 40 psig / 1.4 to 2.8 bar, Yellow***
- 35 to 125 psig / 2.4 to 8.6 bar, Red***

Type 6358EB

- 75 to 140 psig / 5.2 to 9.7 bar, Green***
- 130 to 200 psig / 9.0 to 13.8 bar, Blue***
- 180 to 350 psig / 12.4 to 24.1 bar, Red***

Type PRX/182

- 29 to 116 psig / 2.0 to 8.0 bar, Black***
- 73 to 290 psig / 5.0 to 20.0 bar, Gold***
- 217 to 609 psig / 15.0 to 42.0 bar, Red ***

Type PRX-AP/182

- 435 to 1160 psig / 30.0 to 80.0 bar, Clear***

Trim Package (Optional)

- Yes, send one Type EZR trim package. (If ordering replacement trim package for change-out of existing E-body to a Type EZR, be sure to mark selection of the following items on this page: body size, diaphragm material, inlet strainer option and travel indicator option. If other components are required, they may be selected on this page.)

Main Valve Replacement Parts Kit (Optional)

- Yes, send one diaphragm cartridge and O-rings parts kit to match this order.
- Yes, send one diaphragm and O-rings parts kit to match this order.

Pilot Replacement Parts Kit (Optional)

- Yes, send one replacement parts kit to match this order.

Wireless Position Monitor Mounting Kit (Optional)

- Yes, send one mounting kit for mounting the Topworx™ 4310 or the Fisher™ 4320 wireless position monitor (requires Travel Indicator option).

Type EZR

Ordering Guide (continued)

Regulators Quick Order Guide	
***	Readily Available for Shipment
**	Allow Additional Time for Shipment
*	Special Order, Constructed from Non-Stocked Parts. Consult your local Sales Office for Availability.
Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction.	

Specification Worksheet

Application:
 Specific Use _____
 Line Size _____
 Gas Type and Specific Gravity _____
 Gas Temperature _____

Upstream Regulator Specifications:
 Brand of upstream regulator? _____
 Orifice size of the upstream regulator? _____
 Wide-open coefficient of the upstream regulator? _____
 Maximum Inlet Pressure (P_{1max}) _____
 Downstream Pressure Setting(s) (P_2) _____
 Maximum Flow (Q_{max}) _____

Relief Valve Specifications:
 Relief Valve Setpoint _____
 Accuracy Requirements? _____
 Need for Extremely Fast Response? _____

Other Requirements: _____

✉ Webadmin.Regulators@emerson.com

🔍 Fisher.com

📘 Facebook.com/EmersonAutomationSolutions

🌐 LinkedIn.com/company/emerson-automation-solutions

🐦 Twitter.com/emr_automation

Emerson Automation Solutions

Americas

McKinney, Texas 75070 USA
 T +1 800 558 5853
 +1 972 548 3574

Europe

Bologna 40013, Italy
 T +39 051 419 0611

Asia Pacific

Singapore 128461, Singapore
 T +65 6777 8211

Middle East and Africa

Dubai, United Arab Emirates
 T +971 4 811 8100

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